

CLAIM AMENDMENTS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of selecting a profile of a digital subscriber line, the method comprising:

determining a number of code violations of the digital subscriber line by measuring a count of data transmission anomalies associated with data transmitted over the digital subscriber line during a measurement time period while the digital subscriber line is in operation;

determining a first estimated data packet throughput value of the digital subscriber line using a first profile based on the number of code violations;

determining a second ~~estimated~~ data packet throughput value of the digital subscriber line using a second profile based on the number of code violations; and

~~periodically selecting, from the first profile and the second profile, a profile that has the highest estimated data packet throughput value at a particular measured code violation of the digital subscriber line to be applied to the digital subscriber line based on a comparison of the first estimated data packet throughput value and the second estimated data packet throughput value~~

selecting, from the first profile and the second profile, a profile that has the higher data packet throughput value.

2. (Original) The method of claim 1, further comprising applying the selected profile to the digital subscriber line.

3. (Cancelled).

4. (Currently Amended) The method of claim 1, further comprising determining a third ~~estimated~~ data packet throughput value associated with a third profile based on the number of code violations.

5. (Currently Amended) The method of claim 1, further comprising determining a plurality of ~~estimated~~ data packet throughput values associated with a plurality of profiles based on the number of code violations and wherein a first set of the plurality of profiles corresponds to a first data line transmission speed and a second set of the plurality of profiles corresponds to a second data line transmission speed.

6. (Cancelled).

7. (Currently Amended) The method of claim 5 [[6]], wherein a third set of profiles corresponds to a third data line transmission speed, and wherein the first data line transmission speed is 1536 kbits per second, the second data line transmission speed is 768 kbits per second, and the third data line transmission speed is 384 kbits per second.

8. (Original) The method of claim 5, wherein at least one of the first set of the plurality of profiles is an interleaved profile and another of the first set of the plurality of profiles is a non-interleaved profile.

9. (Currently Amended) The method of claim 1, further comprising generating a graphical display that illustrates the first ~~estimated~~ data packet throughput value, the second ~~estimated~~ data packet throughput value, and the number of code violations.

10. (Currently Amended) The method of claim 9 [[8]], wherein the graphical display illustrates a first set of data packet throughput points for the first profile and a second set of data packet throughput points for the second profile.

11. (Original) The method of claim 1, wherein the number of code violations are measured during a selected time period.

12. (Original) The method of claim 11, wherein the selected time period is less than thirty minutes.

13. (Cancelled).

14. (Currently Amended) The method of claim 10, wherein the first set of data packet throughput points form a first display curve, the second set of data packet throughput points form a second display curve, and wherein the first display curves curve and the second display curve are displayed in a manner to allow selection of a profile having the highest data packet throughput for a selected number of code violations.

15. (Currently Amended) The method of claim 14, wherein the selected number of code violations is correlated with a level of noise present on the digital subscriber line.

16. (Currently Amended) The method of claim 1, wherein the first data packet throughput value and the second data packet throughput value include is a TCP/IP throughput values.

17. (Cancelled).

18. (Original) The method of claim 1, further comprising switching a profile from a previously applied profile to the selected profile on the digital subscriber line.

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Currently Amended) A digital subscriber line control system comprising:
a controller including memory and a processor;
a code violation measurement unit responsive to a plurality of digital subscriber lines, the
code violation measurement unit to provide code violation data associated with
each of the digital subscriber lines by measuring a count of data transmission
anomalies associated with data transmitted over each digital subscriber line during
a measurement time period while each digital subscriber line is in operation;
a profile database to store a plurality of profiles including a first profile and a second
profile; and
a terminal device responsive to the controller, the terminal device configured to display a
graphical report, the graphical report including a first profile curve illustrating
data packet throughput values with respect to code violation data for the first
profile and a second profile curve illustrating data packet throughput values with
respect to code violation data for the second profile;
wherein the controller selects a profile from the profile database that has the highest data
packet throughput value at a particular measured number of code violations for at
least one of the digital subscriber lines.
~~wherein the particular measured code violation is a measured count of data transmission~~
~~anomalies~~

24. (Currently Amended) The digital subscriber line control system of claim 23,
wherein the first profile curve intersects with the second profile curve.

25. (Cancelled).

26. (New) The method of claim 1, wherein the first data packet throughput value is
higher than the second data packet throughput value when the number of code violations
is less than a threshold and the first data packet throughput value is less than the second
data packet throughput value when the number of code violations is greater than the
threshold.

27. (New) The method of claim 1, wherein the count of data transmission anomalies occurs while data is transmitted over the digital subscriber line at a data rate of at least 384 kb/sec.

28. (New) The method of claim 1, wherein the count of data transmission anomalies occurs while data is transmitted over the digital subscriber line at a data rate of at least 768 kb/sec.

29. (New) The method of claim 1, wherein a data transmission anomaly includes a bipolar violation.

30. (New) The method of claim 1, wherein a data transmission anomaly includes an excessive zeros error event.

31. (New) The method of claim 1, wherein a data transmission anomaly includes a frame synchronization bit error.

32. (New) A method of selectively applying a profile to a broadband link, the method comprising:

measuring, during a measurement period, a count of data transmission anomalies associated with data transmitted over a digital subscriber line having a first profile;

comparing the measured count to a profile switching threshold; and

when the measured count exceeds the profile switching threshold, applying a second profile to the digital subscriber line.

33. (New) The method of claim 32, wherein the first profile has a first corresponding data packet throughput value and the second profile has a second corresponding data packet throughput value.

34. (New) The method of claim 32, wherein the profile switching threshold is determined based on an intersection of the first profile and the second profile.